

IN THE ABSTRACT:

Please replace the current abstract with the following new abstract:

A system and method is disclosed for locating mobile stations (MSs), e.g., commercially available wireless handsets, wherein multiple wireless location techniques or models (FOMs herein) can be used in locating the MSs. One or more FOMs can be activated in various combinations and serially or parallelly for outputting one or more location estimates of an MS. Invention embodiments are data-driven in that activation of a FOM depends on an availability of appropriate wireless signal measurements. Invention embodiments can be used to locate MSs based on CDMA, TDMA, GSM, AMPS or NAMPS. There may be one or more networked location determining centers, functioning as an intermediary between multiple POMs and various wireless location requesting applications, e.g. (i) 911 emergency calls, (ii) tracking vehicles, (iii) routing applications, and (iv) people and animal location applications, including applications for confinement to and/or exclusion from certain areas. Invention embodiments process both local and global MS location requests via a network (e.g. the Internet), wherein the FOMs may be network accessed, and resulting MS location estimates may be routed via the network to location requesting applications. The invention may use one or more FOMs based on: TOA, TDOA, AOA, multipath pattern recognition, statistical analysis, distributed antennas (e.g., for in-building MS location), input from reduced coverage base stations specifically for locating MSs, GPS signals (when such signals are receivable at the MS) and/or input from mobile MS tracking units. MS location accuracy, reliability and coverage are enhanced by using multiple FOMs with location enhancement strategies such as adjusting a FOM's MS estimate (and/or a confidence therein) according to: a past performance of the FOM, and/or context constraints (e.g., snap vehicle to streets, and terrain constraints related to MS location, and velocity).